Increasing the access and effectiveness of medical nutrition therapy for North Carolina’s migrant and seasonal agricultural workers

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1) **Introduction**

Registered Dietitians (RDs) are health care professionals who partner with the medical care team to provide nutrition information tailored to patients' health conditions and lifestyle. This customized medical nutrition therapy (MNT) has strong evidence supporting its ability to improve health outcomes and cost effectiveness of care for individuals with lipid metabolism disorders, weight management needs, diabetes mellitus, hypertension, and a variety of other conditions (Handu et al., 2015). The effects of MNT can be seen within months and measurements such as weight loss and lowered hemoglobin A1c demonstrate that the benefits of MNT can be maintained with continued therapy past 12 months (Handu et al., 2015). In addition to improving disease outcomes, nutrition counseling is also an important part of preventative care at all ages.

MNT is not a "one-size-fits-all" treatment. Compared with the MNT approach used for patients with a typical American diet, patient populations with significantly different cultures shaping their relationship with food may be best served by significantly different approaches when preparing and delivering MNT (Buffington & Drago, n.d.). This policy brief asserts that migrant and seasonal agricultural workers (MSAW) are one such population that can be most effectively served through MNT services tailored to their specific needs and strengths.

2) **Background**

While there are a variety of definitions of a MSAW, this brief uses the Public Health Service Act Section 330(g)’s definition of one whose primary employment was agriculture at some point during the last 24 months. If the individual had a temporary home on account of this employment, he is a migrant agricultural worker, and if he has worked less than 12 months in agriculture but has not moved between temporary homes, he is a seasonal agricultural worker (Office of the Law Revision Counsel, 2017)(L. Goller, personal communication, September 6, 2017).

About 90% of MSAW in the Eastern Stream, workers following the harvest from Florida to Maine and back, are Latino and primarily from Mexico (Connor, Layne, & Thomisee, 2010; National Center for Farmworker Health, 2017; Newton, 2010). The Latino population in the US faces a variety of challenges in accessing healthcare as outlined in Figure 1 (Cersosimo & Musi, 2011). In addition to facing these challenges common to Latinos, MSAW populations face additional barriers to care due to their unique employment circumstances. Health issues among MSAW are generally “diagnosed late and treated episodically” (Connor, Page Layne, & Ellis Hilb, 2014). Frequent migration to follow agricultural seasons, lack of transportation, isolated rural environments, and temporary housing in limited facilities like multi-family, dorm-style houses are only a few of these additional barriers MSAW face (Connor et al., 2014). Because cultural norms that differ from other Latinos’ develop out of the demands of MSAW life, different strengths and barriers to health emerge. This brief posits that organizations and RDs should look into best practices for serving Latino MSAW populations in order to provide effective MNT to this unique population.
Across the nation, MSAW are served by a number of healthcare providing entities, many of which are Migrant Health Centers specifically chartered to meet the needs of this transient, often overlooked population. Although it is difficult to keep accurate tabs on such an itinerant population found mostly in remote, rural areas, these health centers estimate that there are currently 2.5-3 million MSAW in the US (L. Goller, personal communication, September 6, 2017). Studies estimate that 58% of MSAW in the Eastern Stream migrate for employment reasons, a much higher rate than the Northwest and California Streams because of the greater number of MSAW with temporary H-2A guest worker visas (National Center for Farmworker Health, 2016b). About half of MSAW are authorized to work, either as US citizens or H-2A MSAW (E. Clingerman, 2011; National Center for Farmworker Health, 2016a; Newton, 2010). The remainder work without obtaining legal permission.

According to the National Agricultural Workers Survey (NAWS) in 2010-2011, 70.7% of MSAWs were born outside the US, yet 67% had spent over 10 years in the US. Over one third of MSAW had been in the US over 20 years (National Center for Farmworker Health, 2016a). Over half of these MSAW were married and had children (E. Clingerman, 2011; National Center for Farmworker Health, 2016a). When measured in 2005, about 250,000 children migrated along with their families (Newton, 2010). These individuals and families, regardless of their legal status or place of permanent residence, cannot put their health concerns on hold for potentially over a decade when earlier diagnoses could prevent escalation of future harm and medical expenses. MSAW must be able to access appropriate, effective medical care wherever their employment leads them.

North Carolina (NC) serves as a migration stop along the Eastern Stream or a permanent home to at least 80,000 MSAW annually (Connor, Layne 2010) (L. Goller, personal communication, September 6, 2017). Most NC MSAW are foreign-born, Mexican, single men, but families are becoming more common, creating a need for medical care across the lifecycle (Quandt, Arcury, Early, Tapia, & Davis, 2004). Located in the mountains of Western NC, Henderson County’s 35,752 acres of farmland support over 3,000 MSAW annually to cultivate, harvest, and pack labor-intensive apples and tomatoes (USDA, 2012; L. Goller, personal communication, September 6, 2017) Over one third of MSAW used a Migrant Health Center the last time they sought health care services (National Center for Farmworker Health, 2016b). Blue
Ridge Health Services (BRHS) is one of the 11 Migrant Health Centers in NC and serves Henderson County and the surrounding counties, which contain over 6,000 MSAW (NCCHCA, 2016b) (L. Goller, personal communication, September 6, 2017). Almost half of the patients served at BRHS’s 14 clinics are Hispanic, and 10%, or just over 3,000 patients, are members of an MSAW household (L. Goller, personal communication, September 6, 2017).

The top three diagnoses among MSAW nationally—obesity, hypertension, and diabetes—are all present among the BRHS MSAW. The MSAW served by BRHS have a higher prevalence of hypertension, however, and almost double the prevalence of diabetes as compared to national prevalence among MSAW as estimated across all Federally Qualified Health Centers (FQHCs) (16.7% have hypertension and 14.5% have diabetes at BRHS versus 10.3% and 7.7% nationally, respectively) (National Center for Farmworker Health, 2017)(C. Walls, personal communication, October 25, 2017). All three of these conditions have shown improvement with MNT, therefore, clinics like BRHS that serve MSAW must be prepared to offer suitable nutrition care (Handu et al., 2015; National Center for Farmworker Health, 2015).

Barriers for MSAW seeking MNT

The Nature of Agricultural Work

The vast majority of agriculture is located in rural areas, especially operations with large enough scale to require hiring seasonal workers. “The majority of all rural counties are located within a health professional shortage area designated by the Health Resources and Services Administration” (Connor, Page Layne, & Ellis Hilb, 2014). Migrant Health Centers are often located in these rural areas with large MSAW populations, but these centers are currently only meeting the needs of 20% of MSAW across the US (Connor et al., 2010, 2014). Even when clinics are able to provide services, the irregular housing arrangements of MSAW make staying in contact by mail, phone, or internet for appointment reminders, test results and other clinic communication very difficult (O’Hegarty et al., 2010).

Much of agricultural work is seasonal, which results in hiring temporary MSAW when labor needs are high and letting them go when work slows. Whether MSAW are migrating to find new work from a domestic home base or are coming from abroad, over half of migrant farm workers end up living apart from their nuclear family (Connor et al., 2010). This leads to individual stress and interrupts family cohesion. The many unknown factors surrounding frequent moves, legality issues, poverty, work conditions, and social isolation in remote, homogeneous rural areas with foreign culture increase the likelihood of mental illness (Connor et al., 2014; Newton, 2010). This makes it challenging to prioritize healthy lifestyles and regular, timely use of medical care.

The seasonality of agriculture also means that time is of the essence when workers are planting, harvesting or packing crops. The average MSAW works 44 hours per week, but this can increase or decrease based on crops and weather patterns (National Center for Farmworker Health, 2016a). For MSAW with H-2A permits, maintaining legal status requires maintaining their employment, leaving many hesitant to ask for time off for medical appointments or raise complaints about unjust practices or facilities (US Citizenship and Immigration Service: California Service Center, 2016). A lack of control over schedule and work environments makes seeking care and following MNT guidance challenging, if not impossible.
Busy days also leave little time for food preparation, causing many MSAW to depend on convenience stores, food trucks, and restaurants for meals that meet their time constraints but perhaps not their dietary needs. Time for making medical appointments can also be scarce and perceived as not worth the investment, especially for chronic conditions that might be asymptomatic like hypertension or diabetes. Short breaks and limited access to food preparation and storage facilities during the day limits MSAWs’ ability to adhere to MNT regimens such as eating small frequent meals or taking medications with food at a certain time (Connor et al., 2010; Newton, 2010).

Affordability:

When Latinos in a recent NC study were asked to identify their top healthcare concern, they selected concerns about legality and documentation because this prevented them from obtaining health insurance, making healthcare unaffordable (Cutts et al., 2016). BRHS MSAW patients have an average household income of $17,013-$19,043 annually and national averages find that most MSAW earn $6.97-$7.90 an hour. Because of limited income, many MSAW families struggle to meet their basic needs, even while working 5-7 days a week (Connor et al., 2014; National Center for Farmworker Health, 2016a) (C. Walls, personal communication, October 25, 2017). Of MSAW in the Eastern Stream, 32% are uninsured (National Center for Farmworker Health, 2016b). According NAWS between 2000-2002, children of migrating agricultural workers lacked health insurance at a rate three times that of other US children, and double that of other children at or near the poverty line (Connor et al., 2014). The NAWS of 2013-2014 estimated that 30% of MSAW households were living below the federal poverty line, but past estimates have ranged from 23% to 80% depending on the geographic area and population of study (Connor et al., 2014; National Center for Farmworker Health, 2017; Newton, 2010; Quandt, Arcury, Early, Tapia, & Davis, 2004).

A family or individual who is barely paying the bills is less likely to seek medical care, and also less likely to have the luxury of choice in groceries that allow them to comply with MNT guidance such as eating more fruits and vegetables (Quandt et al., 2004). Food insecurity, the lack of consistent access to nutritionally adequate foods for a healthy life due to financial constraints, is a significant barrier to health for NC MSAW (Quandt et al., 2004). A 2004 study by Quandt et al. identified food insecurity among Latino farmworkers in NC at almost 50%, a prevalence that is four times that of the general US population for households with children, and three times that of households without children as seen in Figure 2. This manifested in moderate to severe hunger for many families (Quandt, Arcury, Early, Tapia, & Davis, 2004). The seasonal nature of agricultural employment leads to an increase in food insecurity during winter and early spring, or when weather or crop failures mean there is no work for MSAW, who are usually paid hourly or by piece-rate only when they are working (Quandt et al., 2004). Tight budgets often lead to adults under-eating to save food for children and decreased diet diversity, as individuals gravitate towards affordable staples like beans and rice and away from high cost items like produce (Quandt et al., 2004). Individuals who utilize food pantries have greater access to food, but limited control over the health of those foods. Food insecurity understandably causes individuals to prioritize the needs of feeding themselves and their families in the moment over following MNT guidance that could improve their health in the future.
Legal Challenges

Fear of legal repercussions not only prevents MSAW from attaining health insurance, but it also stokes fear and mistrust of health services to disincentivize seeking healthcare (Cutts et al., 2016; O’Hegarty et al., 2010). The consequences of fear include non-utilization of clinics and support programs like Medicaid, even among individuals who fully qualify (Connor et al., 2014)(Connor et al., 2010). Nationally, Latinos lack primary care providers as a rate double that of African Americans and three times that of Caucasians. (Mann et al., 2016). Studies among undocumented MSAW paint an even grimmer picture, with 33-50% afraid to seek health care because of their immigration status (Newton, 2010).

The legal challenges in seeking medical care also include an inability to obtain a driver’s license for unregistered MSAW who lack social security numbers. Driving without a license is a misdemeanor in NC, resulting in a steep fine and possible arrest based on past legal record. If arrested, finger prints will be run and Immigration and Customs Enforcement will then have access to an individual’s data and have the authority to deport as appropriate. Traffic violations are the most common cause of Latino arrests, and most deportations are preceded by misdemeanors, not serious or violent crimes (Mann et al., 2016). It is not hard to understand why patients miss appointments when such significant hurdles are placed between them and the clinic.

Finally, the fear created by legal concerns can itself cause direct harm to health. Mann et al. found that NC Latinos report that “immigration enforcement policies compound existing distrust of services, condone racism, promote racial profiling, create practical barriers to
accessing and utilizing health services, promote reliance on non-medical sources of care, and negatively impact physical and mental health for both adults and children" (Mann et al., 2016).

**Communication Barriers:**

Communication challenges include whether the patient’s primary language is spoken by clinic employees (e.g. Spanish versus English), and whether the health information provided in the patient’s language is understandable based on his or her medical knowledge. In the 2000 National Health Interview Survey, English-proficient Latino patients received advice on diet or physical activity from medical providers in 23.4% of appointments, whereas non-English-proficient patients only received this guidance 16% of the time (P<0.05) (Cersosimo & Musi, 2011). Even when Spanish services are offered, if they are not of high quality, a patient may only gain a basic understanding of their condition and may feel it is not worth expounding upon life circumstances that would allow the RD to tailor MNT more effectively to their needs due to expectations that they will not be understood. Where interpretive services are unavailable, the 28% of MAW who self-report inability to speak any English are essentially denied access to quality healthcare (National Center for Farmworker Health, 2016).

Educational materials in Spanish, especially the in-depth, long-term care resources to treat chronic conditions like diabetes and obesity, are often scarce or outdated. It is estimated that up to 53% of MSAW are unable to read English, limiting the effectiveness of traditional MNT that often depends on printed handouts or meal plans (E. Clingerman, 2011). An average school completion of 8th grade among MSAW makes it harder to navigate the health care system and the medical jargon that comes with it (National Center for Farmworker Health, 2016). The struggle to understand medical information is well illustrated by the Forsyth County patient who commented that, with medical terminology, "We don't understand them, even when they're speaking our own language" (Cutts et al., 2016).

**Cultural Fit**

Not only do Latino MSAW face cultural differences in language and food environments, but they also might hold views about health that differ from the Western medicine with which most of their providers practice. Explaining to one’s provider the belief that hot and cold balances dictate health, for example, might cause feelings of embarrassment for patients, but patients report a desire for providers to ask about the topic of folk medicine and keep an open mind (Eggenberger, Grassley, & Restrepo, 2006; National Center for Farmworker Health, 2011). Cersosimo and Musi found that “Latinos were significantly more likely than non-Hispanic Whites to worry about medication side effects (66% vs. 39%, respectively; P <0.01) and report concerns about becoming dependent on medication (65% vs. 39%; P <0.01)” (Cersosimo & Musi, 2011). Different perceptions of Western medications, versus herbal or spiritual treatment, may lead to underutilization of clinics or medication noncompliance. It has also been observed that Latino patients are more likely to have an external locus of control, believing that forces outside themselves are the prime determinants of their health (Cersosimo & Musi, 2011). A lack of self-efficacy in improving one’s health via changes in diet or medications may lead patients to underutilize MNT services and clinics in general.
3) Actions to Increase Access and Effectiveness of MNT for MSAW

Although there are many barriers for MSAW seeking nutrition care, the fact is that over 900,000 MSAW received care at FQHCs in 2015. This clearly indicates that a variety of solutions have been found to reach this population. By exploring the solutions utilized at other clinics and in other settings that serve MSAW, BRHS can verify that they are employing practice- and evidence-supported best practices in nutrition care and adapt them to meet the unique needs of its MSAW population.

The first step in providing the best possible care for MSAW must be to acknowledge that there are significant differences between other patients and MSAW patients in the barriers they face as discussed above, and how their needs are best met. Second, organizations must also acknowledge their individual employees may have bias and misconceptions about MSAW, and that there may be organizational disadvantages for MSAW to access care that need to be addressed. When planning for and acting to ensure adequate access to quality nutrition care is available to all patients, organizations such as BRHS should consider a multi-level approach as detailed in Table 1 and discussed below.

Organizational Level Solutions

Organizational level solutions are in order when organizational problems, such as strict appointment no-show policies or burdensome qualification processes, decrease the number of MSAW able to access care or the quality of the nutritional care they receive.

Strengthen language services

One such area that is important to consider is an organization’s language support services. In order to serve MSAW well, organizations should invest in and formalize their language support services. There is a great need for medical care given in Spanish, but poor language skills can be dangerous, ineffective, and even offensive. Organizations need a level of quality control and policies of “gatekeeping” to determine who is able and approved to provide patient care in Spanish. To support those who are not cleared to speak Spanish, professional interpreters who are not just fluent, but also trained in medical interpreting should be employed (Cersosimo & Musi, 2011; Karliner, Jacobs, Chen, & Mutha, 2007). Organizations should plan staffing adequately so wait times do not increase for Spanish speaking patients, and providers are not tempted to cut corners and go without interpreter support. They should also pay interpreters adequately to attract and retain talent, as well as train staff how to use interpreters effectively and respectfully (Cersosimo & Musi, 2011). Finally, while quality interpretation services are essential with majority immigrant Latino MSAW populations, organizations should also work towards being able to offer direct care in Spanish by hiring Spanish speaking providers and incentivizing current providers to gain language skills. Making this long-term investment could save clinics time and money by shortening appointment times and decreasing the number of staff needed.
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**Table 1**: Factors to consider when striving to provide accessible, quality nutrition care to MSAW patients

*Measure and maintain cultural competence*

In addition to language skills, organizations should also seek to support all employees as they gain and maintain skill in understanding and working with patients of other cultures. To accomplish this, groups have found it helpful to audit the cultural competency of their providers to ensure practices stay sharp and to maintain the fidelity of culturally sensitive care delivery (O’Hegarty et al., 2010). Examples of areas to observe include the respect communicated through tone, probing, and anticipatory guidance as perceived by patients of another culture. Providing ongoing trainings is also important to keep cross-cultural skills in the forefront of employees minds.
**Improve Access**

Intentional organizational policies and services can also improve access to nutrition care through providing transportation and co-scheduling nutrition appointments with other medical visits so patients do not need to miss work or find rides on multiple days (Cersosimo & Musi, 2011; Newton, 2010). Taking the clinic to the patient through mobile clinics located at community sites can also increase patient access to care. This can be pursued by seeking grants to fund mobile clinics or by establishing school-based health centers where children can be seen without patients having to navigate how to get off work to transport them to the clinic office. (Mann et al., 2016). Allowing same-day appointments for walk-ins increases access for MSAW who might need to wait for a ride or an unexpected break from work to seek care (Mann et al., 2016; Newton, 2010). With awareness of the many barriers and lack of control many MSAW face with their schedule, organizations might need to create policies with more forgiveness for missed or changed appointments for MSAW patients.

Employing additional support staff, such as patient navigators, can help MSAW understand the requirements, flow, and follow up of a clinical visit, a task that can confuse even local American patients. All who interact with a patient along his or her path should be trained in culturally appropriate care, the barriers MSAW patients may face, and the organization’s expectations and support services so they can help patients succeed in utilizing care (Mann et al., 2016). Due to the pervasiveness of fear surrounding legal status, patients should be explicitly informed of what documentation they will and will not be asked to provide, qualification requirements, and privacy protections, that their information will not be reported to immigration services (Mann et al., 2016; Newton, 2010).

**Provision of Nutrition Care**

In addition to organizational level changes, evidence supports that adapting the individual content and delivery of MNT could lead to more accessible and effective nutrition care for MSAWs as described below.

**Communicating Respect**

While affordability was reported as the most significant driver of whether many NC Latinos decide to seek medical care, other researchers have found that patients rank feeling respected as one of the most important components of their medical decision making (Newton, 2010; O’Hegarty et al., 2010). One key way this respect was communicated to patients was the provision of care in their own language (E. M. Clingerman, 2006; Newton, 2010). Care from Spanish-speaking RDs can allow for more eye contact and thus might help build rapport with patients because it removes the need for a third party interpreter. Appointments could also be more streamlined when there is no need to pause and wait for an interpreter to repeat what was said. This would allow RDs to spend more time exploring patient concerns, which patients report conveys respect (Cutts et al., 2016). Removing the step of translation also preserves the fidelity of what was said and leave less room for misunderstandings, given that the RD’s Spanish is proficient.
RDs who do not speak Spanish are not excluded from serving MSAWs, however, because additional studies have found that patients rank the communication of respect overall as just as, if not more valuable than care delivered in Spanish. This allows all RDs the opportunity to create effective patient relationships through the intentional use of tone, body language, and cultural humility to convey respect (Newton, 2010). In-depth interviews with a handful of MSAW in Texas identified behaviors that communicate respect for patients as greeting the patient by name, encouraging patient input in conversation, and allowing or inviting family to join for the appointment (Newton, 2010).

The way providers navigate varying perceptions of health and disease can also help befriend or offend a patient, so organizations should offer training and RDs should practice how to respond to health views outside of Western medicine (Cersosimo & Musi, 2011; Newton, 2010). Advance preparation on the part of the RD to learn about common health views of MSAW cultures can help the RD decide whether the view is harmful enough to require addressing and how to promote the positive aspects of any health view (Buffington & Drago, n.d.). The view that certain foods in combination could cause illness, for example, is not particularly harmful if a patient continues to eat a balanced diet that meets all of their nutritional needs, thus the RD should not pursue a potentially offensive discussion on the topic. The perception that more robust children are healthier, however, and that a child’s weight is not related to disease risk could lead to increased risk of childhood obesity, and therefore should be respectfully addressed (Caballero, 2011; Newton, 2010). Misconceptions about diagnoses and the use of medications, such as the belief that to use diabetes medication is to admit one is in poor health, or that you only need to take them if you are feeling ill, are also harmful and should be addressed during MNT (Caballero, 2011). For a patient with a strong external locus of control, RDs should focus on empowerment while providing MNT and monitor the patient’s progress towards goals to foster self-efficacy (Cersosimo & Musi, 2011).

A variety of researchers have explored Latino perceptions of healthcare providers, concluding that patients often hold providers in such high regard that they are not inclined to speak up or contradict their guidance, even if it is inappropriate for their situation (Newton, 2010). Awareness of common patient-provider power dynamics allows the RD to intentionally take steps to give the patient a voice and create a collaborative environment. These steps could include the use of Motivational Interviewing and patient-selected MNT goals to allow patients to lead the care planning process.

Cultural humility

While most individuals can never fully “master” another’s culture, culturally humble RDs can approach the cross-cultural challenge with an attitude of life-long learning to gain knowledge of typical culture and acculturation patterns that will assist in counseling. The continual growth involved in cultural learning means that the RD should always look for and take advantage of opportunities to learn, using assets such as Latino coworkers who can share as cultural insiders, visits to food stores or restaurants that cater to MSAW cultures, the literature, and other community members. No matter how long a RD has worked with MSAW populations, it is important to stay alert for subconscious bias and remember that, just because a way of life is different, it does not mean that it is wrong. It is also important for the RD to remember that,
regardless of place of origin, MSAW have varying levels of acculturation that may differ from expected stereotypes (Buscemi, Beech, & Relyea, 2011). Some experts claim that the majority of traditional Mexican foodways are lost within one generation, resulting in an increase in chronic disease in second generation Latinos (Baker, Rendall, & Weden, 2015; Buffington & Drago, n.d.). MSAW who live in isolated rural communities with others from their home culture, however, might acculturate at a slower rate than anticipated. With the world becoming increasingly globalized, though, hallmarks of the Western diet, such as McDonalds and Coca-Cola, could very well be present in an immigrant MSAW’s home food environment (Buffington & Drago, n.d.). Due to the complicated nature of diet acculturation, RDs should always approach patients as individuals, probing for clues on patient desires, lifestyle, and constraints so that they can provide appropriate, individualized MNT. For example, a RD that assumes a patient’s largest meal of the day is midafternoon based on Latino stereotypes might prescribe a diet pattern that seems unreasonable for an MSAW who is busy at work at this time (Buffington & Drago, n.d.; Connor et al., 2010). RDs should seek to identify a patient’s key sources of strength, such as faith or family relationships, and teach patients to use these supports to empower health changes (Caballero, 2011). By setting aside preconceived notions and inviting patients to describe their lives and preferences as unique individuals, RDs can offer tailored, effective MNT in any culture.

Considerations of the individual’s budget and the resources available in the local community should also shape MNT. RDs serving MSAW should stay abreast with local agriculture happenings, such as weather or crop season changes that leave MSAW without work and therefore with shrinking food budgets. If the MSAW’s work hours and budget is changing by the month, MNT should also follow suit (Quandt et al., 2004). In Central and Eastern NC, for example, fishing, wild game, and gardening are important contributors to food security during times of the year when income is tight. Lending to peers within the MSAW community is also common to help families living paycheck to paycheck (Quandt et al., 2004). An awareness of these practices and the incorporation of time and money saving tips in MNT curriculum would help the RD offer sound guidance for the unique financial situation of their MSAW client (Quandt et al., 2004). Providers serving MSAW should also keep an updated list of emergency food and transportation resources that are accessible based on MSAW schedules on hand so they are prepared to make referrals as needed (Connor et al., 2014). A knowledge of the stores that are accessible to MSAW (corner stores at congregation sites for labor contractors, food trucks that travel to field sites etc.) and what they sell would also help the RD make realistic recommendations that set MSAW patients up to succeed on their nutrition goals.

With the awareness that, as a foreigner to the MSAW culture, the RD might not completely understand perceptions and problems, the RD should enlist MSAW and other community members for help creating resources like curriculum. Pilot testing these resources with the target population serves as additional assurance that one’s advice is perceived accurately and seen as culturally acceptable.

Because NC is the state with the highest number of certified H-2A guest worker positions, RDs should know how to work within the constraints of these permits and help these MSAW advocate for their specific protections and rights (Alliance, 2012). Although many labor protection laws do not apply to agricultural workers, RDs should be aware of the housing, wage, and work hour rights of H-2A MSAW so they can provide diet guidance that is feasible within
those constraints and advocate for patients when those rights are violated (United States Department of Labor Wage and Hour Division, 2017).

**Utilize Cultural Strengths**

Although the socioeconomic profile common among immigrants such as MSAW has typically been associated with poor health outcomes, immigrants often have health that is better than epidemiologically expected, a phenomenon coined “the Immigrant Paradox” (Cersosimo & Musi, 2011; Mendoza, 2009). First generation immigrants, especially Hispanics, tend to have lower rates of overweight and obesity as compared to their American socioeconomic peers according to Baker, Rendall, and Weden, possibly due to immersion in enclave communities with diets that are a higher proportion plant-based as compared to the average American (Baker et al., 2015). Even with the many hurdles for MSAW to overcome, Conner et al. found that Latinos have no significant lowering of their Health Related Quality of Life Scores (Connor et al., 2014). Some hypothesize that strong cultures of health promotion among tight-knit communities and families of immigrants buffer individual health from the negative impact often associated with poverty (Connor et al., 2014; Mendoza, 2009). This protective effect of culture does not seem to extend beyond the first generation when considering BMI, however, as the prevalence of overweight and obesity in second and third generation immigrant children does not differ by a statistically significant amount from that of the average American (Baker et al., 2015). RDs should seek to identify and reinforce cultural strengths of first generation Latino MSAW in an effort to promote their health and the health of their children.

Strong adherence to gender roles has been found among many Latinos and is worthy of consideration when planning nutrition care plans for MSAW patients (Eggenberger et al., 2006; Sobralske, 2006). As previously mentioned, cultural expression, including gender roles within families, are influenced by individuality, work roles, and migratory constraints, so the RD should never make assumptions based on stereotypes (Newton, 2010; Sobralske, 2006). Awareness of some common household dynamics can be helpful, however, in helping the RD identify and work within these structures during counseling (Newton, 2010). The attitude of “machismo,” the cultural expectation that the man takes the leading role in household decision making and providing for the family, can be utilized to promote care seeking among Latino men who often do not seek preventative or timely treatment. For example, probing for and reflecting a MSAW’s desire to maintain or regain health to be able to work hard and provide for his family could be enough to convince a man who has been non-compliant with diabetes treatment to begin making dietary changes (Caballero, 2011; Sobralske, 2006).

Women, in their traditional role as caretakers and nourishers of the family, are often looked to in the household for decisions about health and meal selection (Caballero, 2011; Eggenberger et al., 2006; Newton, 2010). This role, as well as the woman’s observed tendency to utilize health services more often than men, means women gain skills in navigating health systems and can guide family members in seeking necessary care (Newton, 2010). A man whose machismo attitude delays care seeking, for example, might be persuaded to attend a nutrition visit at the urging of his wife (Caballero, 2011). Latino mothers, as all mothers, take great pride in raising healthy children (Newton, 2010). This motivation can be directed towards helping mothers adopt healthy child feeding practices and setting household ground rules, such as limiting screen time and structuring snack time. The skillful RD can redirect practices such as
showing love through serving a child’s preferred junk foods or large portions into an emphasis on loving with a long-term perspective of a child’s health, and through investing time in making healthy food in suitable portions (Buffington & Drago, n.d.). For families where cleaning one’s plate is a sign of respect, a simple switch to using smaller plates can preserve cultural communication while also promoting health (Buffington & Drago, n.d.).

The strong trait of “familismo,” or putting one’s family’s needs before one’s own, can lead some parents to put their health on hold and delay seeking care or adjusting household diets to meet MNT recommendations. Reframing can harness this loyalty to family as a motivator, however, encouraging patients to take care of themselves so they are able to provide for their loved ones (Caballero, 2011; Newton, 2010). Getting the whole family involved in lifestyle changes, such as exercise routines or cutting out salt or junk food, can help patient stick with it and feel supported. Involving family members also means that others who could potentially have the same predisposition to the condition treated by MNT will also be exposed to a healthier lifestyle and perhaps avoid developing the condition themselves (Caballero, 2011). The RD who is aware of a patient’s loyalty to family not only allows, but also encourages family to be present at appointments. Researchers have found that, when healthcare providers praise family member attendance and involvement in care, they communicate respect to Latinos, who strongly value their family’s opinion in making health decisions (Cersosimo & Musi, 2011). Having other family members present can also provide another set of ears to help patients recall MNT content, and their social support can hold the patient accountable to their care plan goals.

Finally, utilizing cultural strengths means the RD should emphasize healthy aspects of the traditional foodways to which their MSAW patient might subscribe. Traditional Latino diets have often proven to be more plant based than the Western diet, leading to lower risks of diabetes, hypertension, hypercholesterolemia, colon cancer, and overweight and obesity (Buffington & Drago, n.d.). Fruit, vegetable, and fiber intakes decline with acculturation, thus it would be health promoting to preserve these aspect of a traditional Latino diet (Buffington & Drago, n.d.). All foodways have their downsides, however, and the traditional diets of Latino MSAW are also more likely to be high in carbohydrates and saturated fat (Caballero, 2011). The RD should not ignore this in order to avoid stepping on patients’ proverbial toes, but should consider the patients’ starting point when offering guidance and set realistic goals. A patient with diabetes consuming 8-10 tortillas with a meal, for example, might be better served by a goal of decreasing consumption by 2 tortillas per meal each week instead of jumping immediately to the textbook prescription of 3 portions of carbohydrate in pursuit of euglycemia. Some MSAW may report that the frequent family gatherings that are common in Latino culture pose a challenge in complying with MNT because of the unspoken understanding that it is impolite to decline food. These patients might benefit from collaborative goal setting to strategize how to prevent excess consumption of calories and less healthy celebratory foods that are associate with such event (Caballero, 2011). Compared to non-Latinos, Latinos are less likely to make a plan before grocery shopping, more likely to browse around, and have proven more subject to in-store marketing and impulse buys (Buffington & Drago, n.d.). RDs can frame advice on shopping healthfully as building skills to save time and stretch tight budgets. RDs can capitalize on a greater willingness to browse in stores to encourage nutrition label reading for healthy food selection (Buffington & Drago, n.d.).
4) Implications for BRHS

As a Migrant Health Center with over 50 years of experience, BRHS already provides MNT to approximately 3,000 MSAW household members annually and has in place many of the components recommended by the literature (C. Walls, personal communication, October 25, 2017). On the organizational level, a strong and formalized language support team with multiple interpreters can be accessed in person or via iPad, giving all clinic locations the ability to offer high quality healthcare for Spanish-speaking patients. A language phone line is also available to provide care in any of the indigenous languages encountered among MSAW. The protocol for using these language services is formalized, well known, and utilized broadly among staff.

BRHS has also created an environment that values and promotes cultural humility among all employees. From new staff orientation to ongoing in-service educations that teach about the needs of its patient population, BRHS sets forth clear standards of quality care and the expectation that these will be upheld. Experienced staff support this cultural education through sharing experiences and training new staff. The MNT offered at BRHS is patient-centered, with information gathered about the patient’s lifestyle and preferences shaping nutrition recommendations. Patients are encouraged to set goals that are feasible based on their life circumstances, and family members are welcome to join during appointments.

As a FQHC, BRHS also engages in multifaceted work to improve patient access to care. The use of a sliding scale when determining patient bills, a “no patient turned away” policy, and a 340B pharmacy for access to affordable medications decreases the financial barriers to care (Blue Ridge Community Health Services, 2016). Co-scheduling nutrition visits along with other provider appointments prevents patients from having to pay two bills and come to the clinic twice. BRHS decreases the transportation barrier for MSAW by providing rides to and from appointments, offering Clinicas en el Campo (mobile clinics), and telehealth that allows patients in more remote areas to meet with specialists, like nutritionists, through iPad consults. Five school-based health centers also provide acute and ongoing care to over 2,100 children annually during the school day so parents do not have to find time off work or a ride to get children the care they need (Blue Ridge Community Health Services, 2016). As a patient-centered medical home, medical providers, specialty referrals, pharmacy services and more can be accessed under the same roof (NCCHCA, 2016a). Patients who are not at sites with pharmacies can have medications delivered to their homes. BRHS also coordinates referrals to social services, food pantries, and community diabetes self-management courses. Same-day appointments are offered as needed so acute needs can be addressed and MSAW with unpredictable schedules can still access care.

Based on comparison to best practices from the literature and self-assessment by BRHS’s current RDs, potential growth areas for the health system include increasing patient access to MNT delivered in Spanish and continued growth in how to navigate and employ cultural differences while creating nutrition care plans. Investments in cultural education and opportunities to practice navigating cultural differences should be provided by BRHS as an organization and sought by RDs as individuals. Support from cultural insiders and sharing strengths among staff members with varying levels of experience will be beneficial in continuing to improve the excellent nutrition care BRHS offers to its MSAW patients.
5) Conclusion

Accessible and effective MNT is a valuable service to strive for because it has been shown to improve patient health outcomes for a variety of conditions, save physician time, and decrease medication and hospital utilization (Handu et al., 2015). To provide this service, organizations and RDs must offer the culturally appropriate care required to build long-term patient relationships (Caballero, 2011). This is especially important in patients with chronic diseases where in-depth treatment is required and follow up over years is common.

Quality, patient-centered MNT for MSAWs will assist BRHS in meeting its Universal Data System quality measures because it has the potential to increase patient satisfaction (and therefore retention) and decrease the rates of uncontrolled diabetes and hypertension. Accessible and effective MNT are also part of ensuring that BRHS fulfills its charter as a provider of quality, accessible care for all. While this brief is written to inform the practices at BRHS, it may be applicable to other clinics serving similar populations and stands to benefit any RD seeking to further his or her effectiveness with MSAW patients.
6) Works Cited


National Center for Farmworker Health. (2016b). *Regional Migrant Health Profile: An Analysis of Migrant & Seasonal Agricultural Worker Patients*.


